

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Peter Camble et al.

Confirmation No.: 7856

Application No.: 10/033,003

Examiner: T.M. Hossain

Filing Date: 12/28/2001

Group Art Unit: 2145

Title: METHOD FOR USING PARTITIONING TO PROVIDE CAPACITY ON DEMAND IN DATA LIBRARIES

Mail Stop Appeal Brief-Patents
Commissioner For Patents
PO Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

Sir:

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on 09/19/2005.

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) \$500.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

() (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d) for the total number of months checked below:

() one month	\$120.00
() two months	\$450.00
() three months	\$1020.00
() four months	\$1590.00

() The extension fee has already been filled in this application.

(X) (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account **08-2025** the sum of \$500.00. At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

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Respectfully submitted,

Peter Camble et al.

By Jerry L. Mahurin

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Date: **11/21/2005**

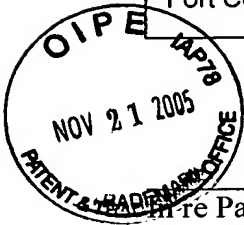
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Docket No.: 30014517-1
(PATENT)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Peter Camble et al.

Application No.: 10/033,003

Confirmation No.: 7856

Filed: December 28, 2001

Art Unit: 2145

For: METHOD FOR USING PARTITIONING TO
PROVIDE CAPACITY ON DEMAND IN
DATA LIBRARIES

Examiner: T. M. Hossain

APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

As required under § 41.37(a), this brief is filed within two months of the Notice of Appeal filed in this case on September 19, 2005, and is in furtherance of said Notice of Appeal.

The fees required under § 41.20(b)(2) are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37 and M.P.E.P. § 1206:

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| V. | Summary of Claimed Subject Matter |
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Appendix A	Claims
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I. REAL PARTY IN INTEREST

The real party in interest for this appeal is:

Hewlett-Packard Development Company, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

A. Total Number of Claims in Application

There are 23 claims pending in application.

B. Current Status of Claims

1. Claims canceled: None
2. Claims withdrawn from consideration but not canceled: None
3. Claims pending: 1-23
4. Claims allowed: None
5. Claims rejected: 1-23

C. Claims on Appeal

The claims on appeal are claims 1-23

IV. STATUS OF AMENDMENTS

The present application was filed on December 28, 2001. A first Office Action on the merits was mailed on February 9, 2005, rejecting claims 1-6, 8, 12, 13-16, and 18 as obvious under 35 U.S.C. § 103(a) over Abboud et al., U.S. Patent No. 6,636,958, in view of Schubert et al., U.S. Patent No. 6,742,034 and rejecting claims 7, 9-11, 17, and 19-23 as obvious under 35 U.S.C. § 103(a) over Abboud in view of Schubert and Darago et al., U.S. Patent No. 6,606,664. Appellant filed a response on May 3, 2005 arguing that the combination of references failed to teach or suggest all elements of the claims and that the motivation to combine the references advanced by the Office Action was insufficient.

A final Office Action was mailed on August 9, 2005 in which the Examiner rejected Appellant's arguments. No response after final was filed in this case. Rather, Appellant filed a Notice of Appeal on September 19, 2005. This Appeal brief is filed in furtherance thereof.

In the course of preparation of the present Brief Appeal Appellant has discovered several typographical errors, which upon a favorable ruling by the Board will be corrected. For purposes of reference these errors include the following:

In claims 3, 7, and 8 the terms "first set" and "second set" should be replaced with the terms "disabled set" and "active set," respectively to clarify antecedent basis. In claims 6 and 16 the word "said" appearing immediately before the phrase "storage service provide" should be replaced with the article "a" to clarify antecedent basis.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Embodiments of methods for using partitioning to provide capacity on demand in data libraries are described in paragraphs 0014 through 0028 of the present specification. By way of example, a method for providing data storage capacity on demand is described in paragraphs 0019 through 0021 and flowcharted in FIGURE 2. Method 200 comprises disabling a set of slot elements and data transfer elements of a data library disallowing access to the disabled set by end users of the library at 203. At 202, at least a portion of a set of active data media storage slot elements and active data transfer elements of the data library (exclusive of the disabled set) is partitioned into partitions for use by the end users. The sets are redefined in response to changes in storage capacity rights of the end users at 204.

Another embodiment of method 200 comprises reserving a set of data media storage slot elements and data transfer elements in a data library for present and future use by a customer at 201. At 203, a subset of the set of slot elements and data transfer elements is disabled and, at 202, the reserved set is partitioned into a subset of the set of slot elements and data transfer elements activated as a partition secured for use by the customer, where the subsets are exclusive of one another. At 204, the partition is redefined by moving at least one element between the subsets in response to changes in storage capacity needs of the customer.

An embodiment of a method for limiting access to data storage capacity in a data library is described in paragraphs 0024 through 0028 and flowcharted in FIGURE 3. Method 300 comprises disabling a set of slot elements and data transfer elements of the data library and disallowing access to the disabled set at 302. At 303, at least a portion of a set of active slot elements and active data transfer elements of the data library is partitioned into partitions for use by one customer, where the sets are exclusive of one another. At 306, numbers of the elements in the partitioned set are keyed on a license purchased by the customer.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1-6, 8, 12, 13-16, and 18 are obvious under 35 U.S.C. § 103(a) over Abboud et al. (U.S. Patent No. 6,636,958, hereinafter *Abboud*) in view of Schubert et al. (U.S. Patent No. 6,742,034, hereinafter *Schubert*).

Whether claims 7, 9-11, 17, and 19-23 are obvious under 35 U.S.C. § 103(a) over *Abboud* in view of *Schubert* and Darago et al. (U.S. Patent No. 6,606,664, hereinafter *Darago*).

VII. ARGUMENT

Appellant hereby traverses the outstanding rejections, and requests reconsideration and reversal of the outstanding rejections for the reasons advanced below.

A. Rejections under 35 U.S.C. §103(a) over *Abboud* in view of *Schubert*

As noted above, claims 1-6, 8, 12, 13-16, and 18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Abboud* in view of *Schubert*. Appellant respectfully traverses these rejections.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. *See* M.P.E.P. §2143. Without conceding the second criterion, Appellant asserts that the rejections do not satisfy the first and third criteria.

1. Lack of All Claimed Elements

a. Independent Claim 1

Claim 1 recites, in part, “providing data storage capacity on demand ...”. The Examiner relies on *Abboud* as teaching this element. Final Office Action, page 8. However, at the passage cited by the Examiner, *Abboud* only teaches re-purposing a server to permit running of a software application, not providing data storage capacity. *Abboud*, col. 5, lines 16-19. Appellant respectfully notes that *Abboud* is directed to a drive partitioning scheme. *See Abboud*, Title and Abstract. Moreover, *Schubert* makes no mention of providing data storage capacity on demand.

Claim 1 also recites, in part, “partitioning at least a portion of a set of active data media storage slot elements and active data transfer elements of said data library, exclusive of said disabled set, into partitions for use by said end users ...”. The Examiner relies upon *Abboud* as teaching these elements. Final Office Action, page 2. However, the combination of references fails to teach or suggest partitioning a set of active data media storage slot elements and active data transfer elements of a data library. The portion of *Abboud* relied upon by the Examiner as teaching this element merely indicates that a hard drive of an appliance server may have more than one partition. *Abboud*, col. 6, lines 37-44; col. 9, lines 46-64. However, *Abboud* is silent concerning partitioning a data library and so is *Schubert*.

The Examiner insists that Abboud teaches a storage area network (SAN), which constitutes a data library. Final Office Action, page 9. Although *Abboud* discloses a storage location on a network, it does not teach or suggest a SAN. *Abboud*, col. 5, lines 55-60. Furthermore, even if *Abboud* indeed disclosed a SAN, such a disclosure by itself would not meet the step of “partitioning a set of active data media storage slot elements and active data transfer elements of a data library,” as recited in claim 1.

Further, *Abboud* does not teach or suggest “partitioning ... a set of active data media storage slot elements and active data transfer elements..., exclusive of said disabled set” (emphasis added) because, as the Examiner has admitted, *Abboud* fails to teach or suggest “disabling of slot and data transfer elements.” Final Office Action, page 2. Thus, *Abboud* cannot teach, or suggest partitioning a set of active data media storage slot elements and active data transfer elements exclusive of such a disabled set.

Claim 1 further recites, in part, “redefining said sets in response to changes in storage capacity rights of said end users.” The Examiner has relied upon the following passage of *Abboud* as teaching this element:

[f]irst application 507 contained in NOS partition 305 may be replaced with second (new) application 509. During normal operation, the application that is currently in NOS partition 305 determines the functionality of the appliance server. Re-provisioning involves the removal of the first application 507 (as well as the associated OS) from the NOS partition 305 and subsequent loading of the second application 509 into NOS partition 305. *Abboud*, column 9, lines 52–55.

In other words, *Abboud* merely discloses removing an application from a partition and then loading another application onto the partition. However, *Abboud* does not teach or suggest redefining sets of active and disabled slot and data transfer elements. Further, the combination of references is silent as to changes in storage capacity rights of end users, as recited in claim 1.

As noted above, the Examiner relies on *Schubert* as teaching “disabling these elements, which effectively disallows access to these elements.” Final Office Action, page 2.

However, claim 1 recites “disabling a set of slot elements and data transfer elements of a data library” (emphasis added). *Schubert* is silent concerning data libraries, and so is *Abboud*.

Finally, claim 1 recites, in part, “disallowing access to said disabled set by end users of said library” (emphasis added). In contrast *Schubert* provides that:

[w]hen that particular host 12 requests an identification of all available logical storage devices, masking engine 20 then responds by identifying only the subset. In such a way, the masking engine "masks" other available logical storage devices, preventing the particular host from attempting to take control of the other logical storage devices. *Schubert*, col. 4, lines 48–53.

Thus, *Schubert* only teaches masking other available logical storage devices from host 12, *not* disallowing access to disabled slot and data transfer elements to (all) end users of a data library, as claimed. Appellant can find no such teaching or suggestion in *Abboud*.

For at least the foregoing reasons Appellant respectfully asserts that the combination of *Abboud* and *Schubert* fails to teach or suggest all the elements of independent claim 1. Thus, The rejection of independent claim 1 should be overturned.

b. Dependent Claim 2

Dependent claim 2 depends from independent claim 1, and thus inherits all of the elements of that independent claim. It is respectfully submitted that dependent claim 2 is allowable at least because of its dependency from independent claim 1 for the reasons discussed above in addressing the rejection of claim 1.

Moreover, claim 2 recites, in part, “reserving at least a portion of said disabled set of data media storage slot elements and data transfer elements for present and future use by one of said end users.” The Examiner has admitted that *Abboud* fails to teach or suggest “disabling of slot and data transfer elements.” Final Office Action, page 2. Appellant asserts that because *Abboud* fails to teach or suggest “disabling of slot and data transfer elements,” *Abboud* also fails to teach or suggest “reserving at least a portion of said disabled ... slot ... and data transfer elements,” as recited in claim 2. Appellant can find no such teaching or

suggestion of these elements in *Schubert*. Accordingly, Appellant respectfully asserts that claim 2 is further patentable over the rejection of record.

c. Dependent Claims 3 and 4

Dependent claim 3 depends from independent claim 1, and thus inherits all of the elements of that independent claim. It is respectfully submitted that dependent claim 3 is allowable at least because of its dependency from independent claim 1 for the reasons discussed above in addressing the rejection of claim 1.

Moreover, claim 3 recites a “redefining step further compris[ing] moving at least one element of said second [disabled] to said first [active] set in response to an order from one of said end users for additional storage capacity” (clarification added consistent with the aforementioned offer to clarify antecedent basis). The Examiner has relied upon the following passage of *Abboud* as meeting this element:

[f]irst application 507 contained in NOS partition 305 may be replaced with second (new) application 509. During normal operation, the application that is currently in NOS partition 305 determines the functionality of the appliance server. Re-provisioning involves the removal of the first application 507 (as well as the associated OS) from the NOS partition 305 and subsequent loading of the second application 509 into NOS partition 305. *Abboud*, column 9, lines 52–55.

In other words, *Abboud* merely discloses removing an application from a partition and then loading another application onto the partition. However, *Abboud* does not teach or suggest moving a slot or data transfer elements from one set to another, such as from a disabled set to an active set. Further, the combination of references is silent as to an order from an end user for additional storage capacity, as recited in claim 3. Accordingly, Appellant respectfully asserts that claim 3 is further patentable over the rejection of record.

Claim 4 depends directly from dependant claim 3 and indirectly from independent claim 1, and thus inherits all of the elements of those claims. Therefore, for at least the reasons advanced above in addressing the rejection of claims 1 and 3, Appellant respectfully asserts that claim 4 sets forth features and elements not taught or suggested by the

combination of *Abboud* and *Schubert*. Accordingly, Appellant respectfully asserts that claim 4 is patentable over the rejection of record.

d. Dependent Claim 5

Dependent claim 5 depends from independent claim 1, and thus inherits all of the elements of that independent claim. It is respectfully submitted that dependent claim 5 is allowable at least because of its dependency from independent claim 1 for the reasons discussed above in addressing the rejection of claim 1.

Moreover, claim 5 recites, in part, a “data library [that] is controlled by a storage service provider.” The Examiner has relied upon *Schubert* as providing this element. However, at the passage cited by the Examiner, *Schubert* discloses:

[a] storage area network (SAN) is a network developed to address many of the above concerns. A conventional SAN includes a collection of data storage devices (also known as a “storage pool”) communicatively coupled to a plurality of hosts such as workstations and servers. The storage devices in a SAN can be co-located, which allows for easier maintenance and easier expandability of the storage pool. In the present disclosure, the term “host” and “server” are used interchangeably, with the understanding that a “server” is one type of “host.” *Schubert*, col. 1, lines 30-40.

In other words, *Schubert* merely teaches data storage devices coupled to workstations or servers. However, *Schubert* does not teach or suggest a “storage service provider,” as required by claim 5. And, as noted above, the combination of references is silent concerning data libraries. Accordingly, Appellant respectfully asserts that claim 5 is further patentable over the rejection of record.

e. Dependent Claim 6

Dependent claim 6 ultimately depends from independent claim 1, and thus inherits all of the elements of that independent claim. It is respectfully submitted that dependent claim 6 is allowable at least because of its dependency from independent claim 1 for the reasons discussed above in addressing the rejection of claim 1.

Moreover, claim 6 recites, in part, that “end users are customers of said storage service provider.” The Examiner admits that the combination of references does not teach or suggest the claimed element. Final Office Action, page 3. Nonetheless, the Examiner states that “[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to specifically include the element that end users are customers of the storage service provider.” *Id.* Appellant points out that the Examiner has not provided a reference in support of this assertion and/or an affidavit setting forth this data as specifically as possible under 37 C.F.R. § 1.104(d)(2) as previously requested. As noted above, the combination of *Abboud* and *Schubert* does not teach or suggest a “storage service provider.” Furthermore, the combination of references does not teach or suggest customers of a storage service provider, as recited in claim 6. Accordingly, Appellant respectfully asserts that claim 6 is further patentable over the rejection of record.

f. Dependent claim 8

Dependent claim 8 depends from independent claim 1, and thus inherits all of the elements of that independent claim. It is respectfully submitted that dependent claim 8 is allowable at least because of its dependency from independent claim 1 for the reasons discussed above in addressing the rejection of claim 1.

Moreover, claim 8 recites, in part, “moving at least one element of said second [disabled] set to said first [active] set in response to an order from said one end user” (clarification added consistent with the aforementioned offer to clarify antecedent basis). The Examiner relies upon *Abboud* as teaching or suggesting this element. Final Office Action, page 4. However, at the passage cited by the Examiner, *Abboud* discloses entering a command, not placing an order. There is no indication in *Abboud* or *Schubert* that the end user can place an order. Furthermore, the combination of references does not teach or suggest customers of a storage service provider, as recited in claim 8. Accordingly, Appellant respectfully asserts that claim 8 is further patentable over the rejection of record.

g. Dependent claim 12

Dependent claim 12 depends from independent claim 1, and thus inherits all of the elements of that independent claim. It is respectfully submitted that dependent claim 12 is

allowable at least because of its dependency from independent claim 1 for the reasons discussed above in addressing the rejection of claim 1.

Moreover, claim 12 recites, in part, that a “data library is physically located on a premises of one of said end users.” The Examiner admits that the combination of references does not teach or suggest the claimed element. Final Office Action, page 4. Nonetheless, the Examiner states that “[i]t would have been obvious to one of ordinary skill in the art to include the existence of the data library on the premises of the users, as in a computer system, where the user is located at the client computer, and the data library is also located at the same computer.” *Id.* Appellant points out that the Examiner has not provided a reference in support of this assertion and/or an affidavit setting forth his data as specifically as possible under 37 C.F.R. § 1.104(d)(2). Furthermore, as noted above, the combination of *Abboud* and *Schubert* fails to teach or suggest a data library, thus it cannot teach or suggest a data library physically located on a premises of a user, as required by claim 12. Accordingly, Appellant respectfully asserts that claim 12 is further patentable over the rejection of record.

h. Independent Claim 13 and Dependent Claim 14

Independent claim 13 recites, in part, “providing data storage capacity on demand ...” As noted in the remarks with respect to claim 1, neither *Abboud* nor *Schubert* teaches or suggests providing data storage capacity on demand. Accordingly, Appellant respectfully asserts that claim 13 is patentable over the rejection of record.

Claim 13 also recites, in part, “reserving a set of data media storage slot elements and data transfer elements in a data library for present and future use by a customer ...”. The Examiner relies on column 3, lines 1–14 of *Abboud* as teaching this element. Final Office Action, page 4. However, the cited portion of *Abboud* only teaches removing an application and its Operating System (O/S) and storing that application and O/S as an image file in an “image partition” on an appliance server’s hard drive. *Abboud* is silent as to “reserving a set of data media storage slot elements and data transfer elements in a data library for present and future use by a customer.” *Schubert* is similarly silent concerning these elements.

As with claim 1 above, the Examiner relies on *Schubert*, column 8, lines 1–15 and column 4, lines 42–57 as teaching the claimed step of “disabling a subset of said set of slot

elements and data transfer elements.” Appellant respectfully asserts that *Schubert* only teaches masking logical storage devices from a particular host. *Schubert*, col. 4, lines 48–54. However, *Schubert* does not teach or suggest disabling a subset of slot and data transfer elements, and neither does *Abboud*.

Claim 13 further recites, in part, “partitioning said reserved set into a subset of said set of slot elements and data transfer elements activated as a partition secured for use by said customer, wherein said subsets are exclusive of one another” The portion of *Abboud* cited by the Examiner as teaching these elements discusses the partitioning of a hard drive into three partitions. *Abboud*, col. 7, lines 21–36. Nothing in this text teaches or suggests partitioning a set of slot and data transfer elements into a subset of slot and data transfer elements activated as a partition secured for use by a customer, much less with the subsets exclusive of one another, as recited in claim 13.

Finally, claim 13 also recites, in part, “redefining said partition by moving at least one element between said subsets in response to changes in storage capacity needs of said customer.” The portions of *Abboud* cited by the Examiner as teaching this element include the aforementioned discussion of hard drive partitioning and, at column 10, lines 1–35, discussion of how a graphical interface may be used to re-provision an application stored as an image. Nothing in this discussion teaches or suggests redefining a partition of a data library by moving at least one slot or data transfer element between said subsets of slots and data transfer elements, particularly in response to changes in storage capacity needs of a customer.

For at least the foregoing reasons Appellant respectfully asserts that the combination of *Abboud* and *Schubert* fails to teach or suggest all the elements of independent claim 13. Thus, the rejection of independent claim 13 should be overturned.

Claim 14 depends from independent claim 13, and thus inherits all of the elements of that independent claim. Therefore, for at least the reasons advanced above in addressing the rejection of claim 13, Appellant respectfully asserts that claim 14 sets forth features and elements not taught or suggested by the combination of *Abboud* and *Schubert*. Accordingly, Appellant respectfully asserts that claim 14 is also patentable over the rejection of record.

i. Dependent Claim 15

Dependent claim 15 depends from independent claim 13, and thus inherits all of the elements of that independent claim. It is respectfully submitted that dependent claim 15 is allowable at least because of its dependency from independent claim 13 for the reasons discussed above in addressing the rejection of claim 13.

Moreover, similar to claim 5, claim 15 recites, in part, a “data library [that] is controlled by a storage service provider.” As noted above, at the passage cited by the Examiner, *Schuebert* merely teaches data storage devices coupled to workstations or servers. However, the combination of references does not teach or suggest a “storage service provider,” nor does it teach or suggest a data library, as recited in claim 15. Accordingly, Appellant respectfully asserts that claim 15 is further patentable over the rejection of record.

j. Dependent Claim 16

Dependent claim 16 ultimately depends from independent claim 13, and thus inherits all of the elements of that independent claim. It is respectfully submitted that dependent claim 16 is allowable at least because of its dependency from independent claim 13 for the reasons discussed above in addressing the rejection of claim 13.

Moreover, similar to claim 6, claim 16 recites, in part, “customers of said storage service provider.” As noted above, the combination of *Abboud* and *Schubert* does not teach or suggest a “storage service provider.” Furthermore, the combination of references does not teach or suggest customers of a storage service provider, as recited in claim 16. Accordingly, Appellant respectfully asserts that claim 16 is further patentable over the rejection of record.

k. Dependent Claim 18

Dependent claim 18 depends from independent claim 17 and thus inherits all of the elements of that independent claim. As discussed in greater detail below the final Office Action admits that the combination of *Abboud* and *Schubert* fails to teach or suggest every element of claim 17. For this reason alone, the combination of *Abboud* and *Schubert* also fails to teach or suggest all the elements of claim 18. Accordingly, Appellant respectfully asserts that claim 18 is patentable over the rejection of record.

2. Lack of Motivation

As noted above, while addressing claim 1 the Examiner has admitted that *Abboud* does not teach “disabling of slot and data transfer elements, thus disallowing user access to these elements.” Final Office Action, page 2. The Examiner attempts to cure this deficiency by introducing *Schubert*, which allegedly teaches “disabling these elements, which effectively disallows access to these elements.” *Id.* The motivation for making the combination and modification was presented as follows:

[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to include the disabling of certain slot elements, which would in turn, disallow access to certain elements, as taught by Schubert in the system of Abboud. The motivation for doing so lies in the fact that if users need extra space, an efficient method to provision this would constitute the disabling of certain resources, so that space is freed up for those users. Both inventions are from the same field of endeavor, namely the intelligent management of computer storage space. Office Action, pages 2-3.

It is well-settled that the fact that references can be combined or modified is not sufficient to establish a prima facie case of obviousness. *See* M.P.E.P. § 2143.01. Appellant respectfully asserts that the Examiner is relying on impermissible hindsight in order to piece together the elements of the claims based on knowledge gleaned from Appellant’s disclosure. Appellant asserts that without the teachings of Appellant’s disclosure, one of ordinary skill in the art would not find it obvious to disable certain storage resources, so that space is freed up for users who need space. Nothing in *Abboud* or *Schubert* teaches or suggests “that if users need extra space, an efficient method to provision this would constitute the disabling of certain resources, so that space is freed up for those users,” as put forth by the Examiner. In fact, the Examiner seems to be relying on the teachings of the present application to conclude that one of ordinary skill in the art would be motivated to modify the disk drive partitioning system of *Abboud* to employ the disabling asserted by the Examiner as taught in *Schubert*.

Appellant respectfully asserts that the Examiner’s statement that “if users need extra space, an efficient method to provision this would constitute the disabling of certain resources, so that space is freed up for those users” is irrelevant and inaccurate. Final Office Action, pages 2-3. Disabling certain resources does not necessarily constitute an efficient

method to provide extra space needed by users. Appellant respectfully asserts that disabling resources typically reduces the amount of space available to users and renders available space unavailable reducing efficiency of the storage system. Thus, at best this statement can only be interpreted as a mere statement that the references can be combined, and does not state any desirability for making the combination. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ.2d 1430 (Fed. Cir. 1990), as cited in M.P.E.P. § 2143.01. Therefore, the motivation provided by the Examiner is improper, as the motivation must establish the desirability for making the combination and modification.

As to the Examiner's statement that "[b]oth inventions are from the same field of endeavor, namely the intelligent management of computer storage space" (Final Office Action, page 3), Appellant respectfully points out that motivation to combine references to arrive at the claimed invention can be found in the "nature of the problem to be solved" where each reference is directed "to precisely the same problem." *See Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 69 USPQ2d 1686 (Fed. Cir. 2004). Appellant maintains that *Abboud* addresses problems involved in manually re-provisioning an appliance server (*Abboud*, col. 2, lines 32-41), whereas *Schubert* deals with the technical difficulties with placing masking software on each server attached to a network (*Schubert*, col. 2, lines 16-17). Therefore, these references are not directed "to precisely the same problem," such as "the optimization of storage, memory, and system efficiency ..." as advanced by the Examiner. Final Office Action, page 10.

Whereas no valid suggestion has been made as to why a combination of *Abboud* and *Schubert* is desirable, absent the application of impermissible hindsight, the rejection of claims 1-6, 8, 12-16, and 18 should be overturned.

B. Rejections under 35 U.S.C. §103(a) over *Abboud* in view of *Schubert* and *Darago*

Claims 7, 9-11, 17, and 19-23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Abboud* in view of *Schubert* and *Darago*. Appellant respectfully traverses these rejections.

As noted above, to establish a prima facie case of obviousness, three basic criteria must be met. Without conceding the second criterion, Appellant asserts that the rejections do not satisfy the first and third criteria, in that they do not provide the requisite motivation, nor teach all the elements of the claims.

1. **Lack of All Claimed Elements**

a. **Dependent Claim 7**

Dependent claim 7 depends from independent claim 1, and thus inherits all of the elements of that independent claim. As pointed out above, the combination of *Abboud* and *Schubert* does not teach or suggest every element of independent claim 1. *Darago* is not relied upon as teaching or suggesting any of the elements discussed above as missing from *Abboud* and *Schubert*. Therefore, it is respectfully submitted that dependent claim 7 is allowable at least because of its dependency from independent claim 1 for the reasons discussed above in addressing the rejection of claim 1.

Moreover, dependent claim 7 recites, in part, “keying the number of elements in said first [active] set on a license purchased by one of said end users” (clarification added consistent with the aforementioned offer to clarify antecedent basis). The Examiner relies upon *Darago* as teaching or suggesting this element. However, the portion of *Darago* cited by the Examiner discusses the sale of software and supporting documentation employing license agreement for the use of the software and instructions on a single workstation. *Darago*, col. 4, lines 15–25. The Examiner also contends that *Darago* teaches the use of serial numbers, and that such serial numbers are “keyed” on a license. Final Office Action, page 9. However, keying a serial number on a license is in no way related to keying a number of elements in a set, such as an active set, on the license, as recited in claim 7. Nothing in *Darago* teaches or suggests keying the numbers of slot and data transfer elements in a partition based on a license purchased by a customer, as recited in claim 7. Accordingly, Appellant respectfully asserts that claim 7 is further patentable over the rejection of record.

b. **Dependent Claim 9**

Dependent claim 9 depends from independent claim 1, and thus inherits all of the elements of that independent claim. As noted above, the combination of *Abboud* and

Schubert does not teach or suggest every element of independent claim 1. *Darago* is not relied upon as teaching or suggesting any of the elements pointed out as missing from the combination of *Abboud* and *Schubert*. Therefore, it is respectfully submitted that dependent claim 9 is allowable at least because of its dependency from independent claim 1 for the reasons discussed above in addressing the rejection of claim 1.

Moreover, dependent claim 9 recites, in part, that “availability is based at least in part on a license by one of said end users.” The Examiner admits that the combination of *Abboud*, *Schubert*, and *Darago* does not teach or suggest this element. Nonetheless, the Examiner simply states:

it would have been obvious to one of ordinary skill in the art to include the distinction that availability is controlled by the licenses. It is an obvious component of licenses to make available a service to only those users with a license, and to make this service unavailable to those who do not have a license. Final Office Action, page 6.

Appellant points out that the Examiner has not provided a reference in support of this assertion and/or an affidavit setting forth this data as specifically as possible under 37 C.F.R. § 1.104(d)(2), as previously requested. Accordingly, Appellant respectfully asserts that claim 9 is further allowable over the rejection of record.

c. Dependent Claim 10

Dependent claim 10 depends from independent claim 1, and thus inherits all of the elements of that independent claim. As noted above, the combination of *Abboud* and *Schubert* does not teach or suggest every element of independent claim 1. *Darago* is not relied upon as teaching or suggesting any of those elements. Therefore, it is respectfully submitted that dependent claim 10 is allowable at least because of its dependency from independent claim 1 for the reasons discussed above in addressing the rejection of claim 1.

Moreover, dependent claim 10 recites, in part, “blocking said redefining step in response to said license lacking sufficient rights for said redefining.” The Examiner admits that the combination of *Abboud*, *Schubert*, and *Darago* does not teach or suggest this element. The final Office Action goes on to state:

it would have been obvious to one of ordinary skill in the art at the time of the invention to block users not having licenses. Licenses are purchased by the user, and only those users are allowed to access certain services. If a user did not purchase a server, he/she should not be allowed access to the system. Final Office Action, page 6.

Appellant points out that the Examiner has not provided a reference in support of this assertion and/or an affidavit setting forth this data as specifically as possible under 37 C.F.R. § 1.104(d)(2), as previously requested. Accordingly, Appellant respectfully asserts that claim 10 is further allowable over the rejection of record.

d. Dependent Claim 11

Dependent claim 11 depends from independent claim 1, and thus inherits all of the elements of that independent claim. As noted above, the combination of *Abboud* and *Schubert* does not teach or suggest every element of independent claim 1. *Darago* is not relied upon as teaching or suggesting any of those elements. Therefore, it is respectfully submitted that dependent claim 11 is allowable at least because of its dependency from independent claim 1 for the reasons discussed above in addressing the rejection of claim 1.

Moreover, dependent claim 11 recites, in part, “extending licensed library capacity.” The Examiner admits that the combination of *Abboud*, *Schubert*, and *Darago* does not teach or suggest this element. Nonetheless, the Examiner baldly states:

it would have been obvious to one of ordinary skill in the art at the time of the invention to include the ability to purchase further access rights. Most subscription services offer more services for an increased fee, which constitute the extension of licensing capacity. Final Office Action, page 6.

Appellant points out that the Examiner has not provided a reference in support of this assertion and/or an affidavit setting forth this data as specifically as possible under 37 C.F.R. § 1.104(d)(2), as previously requested. Accordingly, Appellant respectfully asserts that claim 11 is further allowable over the rejection of record.

e. Independent Claim 17

Independent claim 17 recites, in part, “limiting access to data storage capacity in a data library ...”. As noted in the remarks with respect to claim 1, *Abboud* and *Schubert* are silent concerning data libraries. Similarly, *Darago* is also silent concerning data libraries.

Claim 17 also recites, in part, “disabling a set of slot elements and data transfer elements of said data library, disallowing access to said disabled set ...”. The Office Action again cites *Schubert* as teaching this element. As noted above, *Schubert* is silent concerning data libraries, much less disallowing access to a disabled set of slot and data transfer elements of a data library. Further, as also discussed above, *Schubert* only teaches or suggests masking other available logical storage devices from a host, not disallowing access to disabled slot and data transfer elements, as claimed.

Claim 17 further recites, in part, “partitioning at least a portion of a set of active slot elements and active data transfer elements of said data library into partitions for use by one customer, wherein said sets are exclusive of one another ...”. As discussed above, *Abboud* discusses the partitioning of a hard drive into three partitions. Nothing in the text of *Abboud* cited by the Examiner teaches or suggests partitioning a set of slot and data transfer elements into a partition for use by one customer, much less with the sets exclusive of one another, as recited in claim 17.

Finally, claim 17 recites, in part, “keying numbers of said elements in said partitioned set on a license purchased by said customer.” As noted above, *Darago* is relied upon as teaching this element. However, the portion of *Darago* cited by the Examiner discusses the sale of software and supporting documentation employing license agreement for the use of the software and instructions on a single workstation. *Darago*, col. 4, lines 15–25. Nothing in *Darago* teaches or suggests keying the numbers of slot and data transfer elements in a partition based on a license purchased by a customer, as recited in claim 17.

For at least the foregoing reasons Appellant respectfully asserts that the combination of *Abboud*, *Schubert* and *Darago* fails to teach or suggest all the limitations of independent claim 17. Thus, the rejection of independent claim 17 should be overturned.

f. Dependent Claim 19

Dependent claim 19 depends from independent claim 17, and thus inherits all of the elements of that independent claim. It is respectfully submitted that dependent claim 19 is allowable at least because of its dependency from independent claim 17 for the reasons discussed above in addressing the rejection of claim 17.

Moreover, dependent claim 19 recites, in part, that “availability is based at least in part on a license by said customer.” The Examiner rejects claim 19 on the same basis as claim 9. Final Office Action, page 7. In the rejection of claim 9, the Examiner admits that the combination of *Abboud*, *Schubert*, and *Darago* does not teach or suggest the above recited element. Nonetheless, the Examiner baldly states:

it would have been obvious to one of ordinary skill in the art to include the distinction that availability is controlled by the licenses. It is an obvious component of licenses to make available a service to only those users with a license, and to make this service unavailable to those who do not have a license. Final Office Action, page 6.

Again, Appellant points out that the Examiner has not provided a reference in support of this assertion and/or an affidavit setting forth this data as specifically as possible under 37 C.F.R. § 1.104(d)(2), as previously requested. Accordingly, Appellant respectfully asserts that claim 19 is further allowable over the rejection of record.

g. Dependent Claim 20

Dependent claim 20 depends from independent claim 17, and thus inherits all of the elements of that independent claim. It is respectfully submitted that dependent claim 20 is allowable at least because of its dependency from independent claim 17 for the reasons discussed above in addressing the rejection of claim 17.

Moreover, dependent claim 20 recites, in part, “blocking said redefining in response to said license lacking sufficient rights for said redefining.” The Examiner rejects claim 20 on the same basis as claim 10. Final Office Action, page 7. In the rejection of claim 10, the Examiner admits that the combination of *Abboud*, *Schubert*, and *Darago* does not teach or suggest the claimed element. Nonetheless, the Examiner baldly states:

it would have been obvious to one of ordinary skill in the art at the time of the invention to block users not having licenses. Licenses are purchased by the user, and only those users are allowed to access certain services. If a user did not purchase a server, he/she should not be allowed access to the system. Final Office Action, page 6.

Again, Appellant points out that the Examiner has not provided a reference in support of this assertion and/or an affidavit setting forth this data as specifically as possible under 37 C.F.R. § 1.104(d)(2), as previously requested. Accordingly, Appellant respectfully asserts that claim 20 is further allowable over the rejection of record.

h. Dependent Claim 21

Dependent claim 21 depends from independent claim 17, and thus inherits all of the elements of that independent claim. It is respectfully submitted that dependent claim 21 is allowable at least because of its dependency from independent claim 17 for the reasons discussed above in addressing the rejection of claim 17.

Moreover, dependent claim 21 recites, in part, “increasing said license.” The Examiner rejects claim 20 on the same basis as claim 11. Final Office Action, page 7. In the rejection of claim 11, the Examiner admits that the combination of *Abboud*, *Schubert*, and *Darago* does not teach or suggest this element. Nonetheless, the Examiner baldly states:

it would have been obvious to one of ordinary skill in the art at the time of the invention to include the ability to purchase further access rights. Most subscription services offer more services for an increased fee, which constitute the extension of licensing capacity. Final Office Action, page 6.

Again, Appellant points out that the Examiner has not provided a reference in support of this assertion and/or an affidavit setting forth this data as specifically as possible under 37 C.F.R. § 1.104(d)(2), as previously requested. Accordingly, Appellant respectfully asserts that claim 21 is further allowable over the rejection of record.

i. Dependent Claim 22

Dependent claim 22 depends from independent claim 17, and thus inherits all of the elements of that independent claim. It is respectfully submitted that dependent claim 22 is allowable at least because of its dependency from independent claim 17 for the reasons discussed above in addressing the rejection of claim 17.

Moreover, dependent claim 22 recites, in part, a “data library is physically located on a premises of said customer.” The Examiner rejects claim 22 on the same basis as claims 12 and 17 and without further reliance upon *Darago*. Final Office Action, page 7. In those rejections the Examiner admits that the combination of *Abboud* and *Schubert* fails to teach or suggest a library located on the premises of the end users. Final Office Action, page 4. Appellant asserts that the combination of *Abboud* and *Schubert* fails to teach or suggest a data library, thus it does not teach or suggest a data library physically located on a premises of a user, as recited in claim 22. Accordingly, Appellant respectfully asserts that claim 22 is further patentable over the rejection of record.

j. Dependent Claim 23

Dependent claim 23 depends from independent claim 17, and thus inherits all of the elements of that independent claim. It is respectfully submitted that dependent claim 23 is allowable at least because of its dependency from independent claim 17 for the reasons discussed above in addressing the rejection of claim 17.

Moreover, claim 23 recites, in part, that the “customer is a storage service provider.” The Examiner rejects claim 23 on the same basis as claim 17 and without further reliance upon *Darago*. Further, at the passage cited by the Examiner, *Schubert* discloses:

[a] storage area network (SAN) is a network developed to address many of the above concerns. A conventional SAN includes a collection of data storage devices (also known as a "storage pool") communicatively coupled to a plurality of hosts such as workstations and servers. The storage devices in a SAN can be co-located, which allows for easier maintenance and easier expandability of the storage pool. In the present disclosure, the term "host" and "server" are used interchangeably, with the understanding that a "server" is one type of "host." *Schubert*, col. 1, lines 30-40.

In other words, *Schuebert* merely teaches data storage devices coupled to workstations or servers. However, *Schuebert* does not teach or suggest a “storage service provider,” as recited in claim 23. Accordingly, Appellant respectfully asserts that claim 23 is further patentable over the rejection of record.

2. Lack of Motivation

The Examiner presents the motivation for making the combination of *Abboud*, *Schubert*, and *Darago* as follows:

[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to include the ability to license a group of services, as taught by Darago in the system of Abboud-Schubert. The motivation for doing so lies in the fact that having a license to a specific service would allow protection of those services to users who have paid for it, which thus ensures that only those users that are serious about these services can use them. All inventions are from the same field of endeavor, namely user-driven network provisioning. Final Office Action, pages 5-6.

As previously noted, the fact that references can be combined or modified is not sufficient to establish a prima facie case of obviousness. *See Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 69 USPQ2d 1686 (Fed. Cir. 2004). Appellant respectfully asserts that the Examiner’s statement “having a license to a specific service would allow protection of those services to users who have paid for it, which thus ensures that only those users that are serious about these services can use them” is irrelevant and inaccurate. Thus, at best this statement can only be interpreted as a mere statement that the references can be combined, and does not state any desirability for making the combination. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. Thus, the motivation provided by the Examiner is improper, as the motivation must establish the desirability for making the combination.

As to the Examiner’s statement that “[a]ll inventions are from the same field of endeavor, namely user-driven network provisioning ...,” Appellant respectfully asserts that this statement is clearly inaccurate and does not meet the burden imposed by *Ruiz* discussed

above. The cited references do not all address “network provisioning” and are not all directed “to precisely the same problem.”

Whereas no valid suggestion has been made as to why a combination of *Abboud*, *Schubert*, and *Darago* is desirable, the rejection of claims 7, 9–11, 16, 17 and 19–21 and 23 should be overturned.

VIII. CLAIMS

A copy of the claims involved in the present appeal is attached hereto as Appendix A.

IX. EVIDENCE

No evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the examiner is being submitted.

X. RELATED PROCEEDINGS

As noted above, there are no related proceedings.

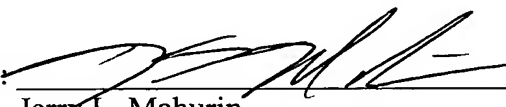
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Date of Deposit: 11/21/2005

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APPENDIX A

Claims Involved in the Appeal of Application Serial No. 10/033,003

1. A method for providing data storage capacity on demand comprising:
disabling a set of slot elements and data transfer elements of a data library
disallowing access to said disabled set by end users of said library;
partitioning at least a portion of a set of active data media storage slot elements and
active data transfer elements of said data library, exclusive of said disabled set, into
partitions for use by said end users; and
redefining said sets in response to changes in storage capacity rights of said end users.
2. The method of claim 1 further comprising reserving at least a portion of said
disabled set of data media storage slot elements and data transfer elements for present and
future use by one of said end users.
3. The method of claim 1 wherein said redefining step further comprises moving
at least one element of said second set to said first set in response to an order from one of
said end users for additional storage capacity.
4. The method of claim 3 further comprising:
charging said one end user for said additional storage capacity.
5. The method of claim 1 wherein said data library is controlled by a storage
service provider.
6. The method of claim 1 wherein said end users are customers of said storage
service provider.
7. The method of claim 1 further comprising:
keying the number of elements in said first set on a license purchased by one of said
end users.
8. The method of claim 1 wherein said redefining step comprises:
moving at least one element of said second set to said first set in response to an order
from said one end user for additional storage capacity and availability of said elements.

9. The method of claim 8 wherein said availability is based at least in part on a license by one of said end users.

10. The method of claim 9 further comprising blocking said redefining step in response to said license lacking sufficient rights for said redefining.

11. The method of claim 9 further comprising extending licensed library capacity.

12. The method of claim 1 wherein said data library is physically located on a premises of one of said end users.

13. A method for providing data storage capacity on demand comprising :
reserving a set of data media storage slot elements and data transfer elements in a data library for present and future use by a customer;
disabling a subset of said set of slot elements and data transfer elements;
partitioning said reserved set into a subset of said set of slot elements and data transfer elements activated as a partition secured for use by said customer, wherein said subsets are exclusive of one another; and
redefining said partition by moving at least one element between said subsets in response to changes in storage capacity needs of said customer.

14. The method of claim 13 further comprising:
adjusting customer charges according to said redefining.

15. The method of claim 13 wherein said library is controlled by a storage service provider.

16. The method of claim 13 wherein said customer is a customer of said storage service provider.

17. A method for limiting access to data storage capacity in a data library, said method comprising:

disabling a set of slot elements and data transfer elements of said data library, disallowing access to said disabled set;

partitioning at least a portion of a set of active slot elements and active data transfer elements of said data library into partitions for use by one customer, wherein said sets are exclusive of one another; and

keying numbers of said elements in said partitioned set on a license purchased by said customer.

18. The method of claim 17 further comprising redefining said partitioned set by moving at least one element between said sets in response to a change in storage capacity needs of said customer and availability of said elements.

19. The method of claim 18 wherein said availability is based at least in part on a license by said customer.

20. The method of claim 19 further comprising blocking said redefining in response to said license lacking sufficient rights for said redefining.

21. The method of claim 19 further comprising increasing said license.

22. The method of claim 17 wherein said data library is physically located on a premises of said customer.

23. The method of claim 17 wherein said customer is a storage service provider.

APPENDIX B

Evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the examiner:

None.

APPENDIX C

Related Proceedings:

None.